PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 512575 KRM	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No.	International filing date (day/mo	onth/year) (Earliest) Priority Date (day/month/year)
PCT/NZ2004/000327	21 December 2004	22 December 2003
Applicant FISHER & PAYKEL APPL	IANCES LIMITED et al	
This international search report has been prep Article 18. A copy is being transmitted to the		Authority and is transmitted to the applicant according to
This international search report consists of a	total of 4 sheets.	
It is also accompanied by a cop	y of each prior art document cited in t	his report.
1. Basis of the report		·
 With regard to the language, the interior it was filed, unless otherwise indicate 		e basis of the international application in the language in which
The international search Authority (Rule 23.1(t		inslation of the international application furnished to this
b. With regard to any nucleotide a	and/or amino acid sequence disclosed	in the international application, see Box No. I.
2. Certain claims were found uns	searchable (See Box No. II).	
3. Unity of invention is lacking (See Box No. III).	
4. With regard to the title,		
X the text is approved as submitted	d by the applicant.	
the text has been established by	this Authority to read as follows:	
_		
		• •
5. With regard to the abstract,		
the text is approved as submitted	d by the applicant.	
	cording to Rule 38.2(b), by this Authoring of this international search report,	ority as it appears in Box No. IV. The applicant may, within submit comments to this Authority.
6. With regard to the drawings,		•
a. the figure of the drawings to be public	shed with the abstract is Figure No. 3	
X as suggested by the app	plicant.	
as selected by this Autl	hority, because the applicant failed to	suggest a figure.
as selected by this Autl	hority, because this figure better chara	cterizes the invention.
b. none of the figures is to be publi	ished with the abstract.	

INTERNATIONAL SEARCH REPORT

International application No.

PCT/NZ2004/000327

Box No. IV	Text of the Abstract	(Continuation of item 5 of the first sheet)
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A method and a controller for electronically commutating a permanent magnet brushless dc motor (21) under closed loop control where current is commutated (22) through successive combinations of two out of three stator windings to produce a rotating flux. Commutations are determined by each 60° angular position of the rotor by sensing the back EMF (24) induced in only one of the three stator windings whenever that winding has no applied current flowing in it to determine the 0° and 180° positions and extrapolating the 60°, 120°, 240°, and 300° positions by dividing the time interval therebetween by a factor of 3.